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Remarks

Applicant and Applicant's undersigned representative wish to thank Examiner Malek for the thorough examination of the present application, the detailed explanations in the Office Action dated January 9, 2008, the helpful and courteous discussion held with the undersigned on February 12, 2008, and the indication that the subject matter of Claims 1-6, 9-22, 25-29, 49-51, 53, 54, 61, 63-73, 97-103, 106-113, 115-123, 125 and 134 is allowable over prior art.

As discussed, Claim 19 has been amended to eliminate the inadvertently-retained word "comprises". Support for the "exact filter" recited in Claims 124 and 126-129 can be found, for example, in paragraph [0034] of the application as originally filed as discussed below. In support of the patentability of Claim 74, a table has been provided to correlate the limitations of Claim 74 (a "means plus function" claim in accordance with 35 U.S.C. § 112, sixth paragraph) to allowed Claim 49. In addition, Claim 89 has been amended to switch the inadvertently incorrect placement of two adjacent words into their correct order, to address the rejection under 35 U.S.C. § 112, second paragraph.

Claims 30, 31, 36, 38-48, 130-133 and 135-140 have been cancelled. Claims 19 and 89 have been amended. No new matter is introduced in the present amendment, and the above amendments to the claims are fully supported by the application as originally filed. Thus, Claims 1-6, 9-22, 25-29, 49-51, 53, 54, 61, 63-75, 77, 79-81, 85, 87, 89-94, 97-103, 106-113, 115-129 and 134 remain pending in the present application.

The Objection to Claim 19 Based on Informalities

Claim 19 has been amended to delete the extraneous word "comprises," thereby obviating the objection to Claim 19 by appropriate amendment.

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The Rejection of Claims 124, 126-129 and 132 under 35 U.S.C. § 112, First Paragraph

The rejection of Claims 124, 126-129 and 132 under 35 U.S.C. § 112, first paragraph, is, in part, respectfully traversed and, in part, obviated by appropriate amendment.

A description of the "exact filter" can be found, for example, in paragraph [0034], beginning on page 12, line 16 of the application as originally filed. The description includes at least one working example, and at least one principle is provided that one skilled in the art can apply to create at least one other exact filter. Since the exact filter is a type of error filter, one may use the exact filter in the same manner as an error filter, the use of which is described at length throughout the specification (e.g., paragraphs [0034]-[0067]) and Figures (e.g., FIGS. 3, 6, 7 and 8) as originally filed. Accordingly, the "exact filter" recited in Claims 124 and 126-129 is enabled, and Claims 124 and 126-129 are allowable.

Claim 132 has been cancelled. Accordingly, this ground of rejection is believed to have been adequately addressed.

The Rejection of Claims 36 and 89 under 35 U.S.C. § 112, Second Paragraph

The rejection of Claims 36 and 89 under 35 U.S.C. § 112, second paragraph, is obviated by appropriate amendment.

Claim 36 has been cancelled. Claim 89 has been amended to read "...said filtered ideal equalized data signal" for consistency with Claim 74. Claim 89 depends from Claim 74, and Claim 74 was amended on October 24, 2007, to recite "a third means for filtering said ideal equalized data signal." Thus, Claim 89 should have also been amended at that time as it is amended herein.

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<u>The Rejection of Claims 30, 31, 38, 40-43, 74, 75, 80, 85, 91, 93 and 94 under 35 U.S.C.
§ 102(b)</u>

The rejection of Claims 30, 31, 38, 40-43, 74, 75, 80, 85, 91, 93 and 94 under 35 U.S.C. § 102(b) as being anticipated by Alelyunas et al. (US 6,285,709) is, in part, obviated by appropriate amendment, and is, in part, respectfully traversed.

Claims 30, 31, 38 and 40-43 have been cancelled.

Claim 74 (a "means plus function" claim in accordance with 35 U.S.C. § 112, sixth paragraph) substantially corresponds to allowed Claim 49, as is shown by the comparison of claim elements below.

<u>Claim 49</u>	<u>Claim 74</u>
A signal processing architecture, comprising:	A signal processing architecture, comprising:
a) an *equalizer* configured to equalize and/or filter a data sequence in accordance with filter coefficients and provide an equalized data output;	a) *means for equalizing* an input data signal in accordance with filtering coefficients, configured to produce an equalized data signal;
b) a *first filter*, configured to receive said data sequence and generate a filtered data term for updating said filter coefficients; and	b) *first means for filtering* said input data signal, configured to generate a filtered data term for updating said filtering coefficients; and
c) an *error term circuit, configured to* receive said equalized data output and *provide a filtered error term* for updating said filter coefficients from a filtered equalized data output and a filtered ideal equalized data output, said error term circuit comprising	c) *means for providing a filtered error term* for updating said filtering coefficients from said equalized data signal and an ideal equalized data signal, comprising
a *second filter* having filter characteristics structurally and/or functionally identical to said first filter, configured to filter said equalized data output;	a *second means for filtering* said equalized data signal, having filter characteristics structurally and/or functionally identical to said first means for filtering;

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Claim 49	Claim 74
a *signal processor* configured to provide an ideal equalized data output from the equalized data output; and	a *means for processing* said equalized data signal, configured to provide said ideal equalized data signal; and
a *third filter* configured to filter said ideal equalized data output, having a subset of filter characteristics structurally and/or functionally identical to said first filter.	a *third means for filtering* said ideal equalized data signal, having a subset of filter characteristics structurally and/or functionally identical to said first means for filtering.

As shown above, Claim 74 recites a third means for filtering, which is not disclosed by Alelyunas. Therefore, Claim 74 is allowable over the cited reference for at least similar reasons as Claim 49.

Claims 75, 80, 85, 91, 93 and 94 each depend directly or indirectly from Claim 74. Thus, for at least the same reasons as Claim 74, Claims 75, 80, 85, 91, 93 and 94 are allowable over the cited reference.

The Rejection of Claims 44-48, 130, 131, 133, 135 and 137-140 under 35 U.S.C. § 103(a)

The rejection of Claims 44-48, 130, 131, 133, 135 and 137-140 under 35 U.S.C. § 103(a) as being unpatentable over Alelyunas et al. (US 6,285,709) has been obviated by appropriate amendment.

The Rejection of Claims 77, 79, 81, 87 and 90 under 35 U.S.C. § 103(a)

The rejection of Claims 77, 79, 81, 87 and 90 under 35 U.S.C. § 103(a) as being unpatentable over Alelyunas et al. (US 6,285,709) in view of the background of the present application is respectfully traversed.

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As discussed above, Claim 74 is allowable over Alelyunas for at least similar reasons as allowed Claim 49. Claims 77, 79, 81, 87 and 90 each depend directly or indirectly from Claim 74. Thus, Claims 77, 79, 81, 87 and 90 are allowable for at least the same reasons as Claim 74.

The Rejection of Claim 39 under 35 U.S.C. § 103(a)

The rejection of Claim 39 under 35 U.S.C. § 103(a) as being unpatentable over Alelyunas et al. (US 6,285,709) in view of Lu (US 6,768,796) has been obviated by appropriate amendment.

The Rejection of Claim 92 under 35 U.S.C. § 103(a)

The rejection of Claim 92 under 35 U.S.C. § 103(a) as being unpatentable over Alelyunas et al. (US 6,285,709) in view of Xia et al. (US 2002/0097795) is respectfully traversed.

As discussed above, Claim 74 is allowable over Alelyunas for at least similar reasons as allowed Claim 49. Claim 92 depends (indirectly) from Claim 74 and thus, Claim 92 is allowable for at least the same reasons as Claim 74.
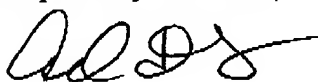
Conclusions

In view of the above amendments and remarks, all bases for objection and rejection are overcome, and the application is in condition for allowance. Early notice to that effect is earnestly requested.

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If it is deemed helpful or beneficial to the efficient prosecution of the present application, the Examiner is invited to contact Applicant's undersigned representative by telephone.

Respectfully submitted,

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